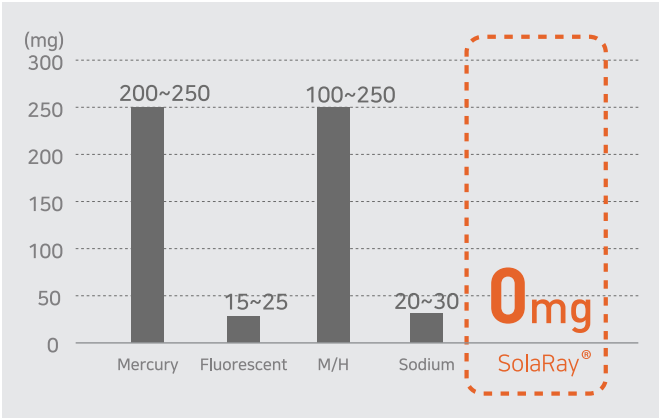


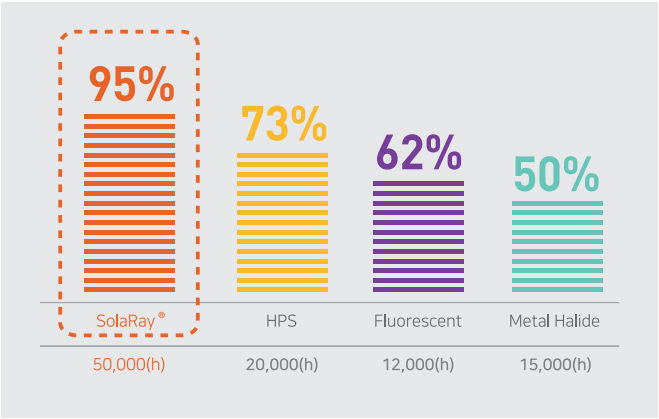
Eco-Friendly Lighting

Comparison of Hg Contents in Different Lamps



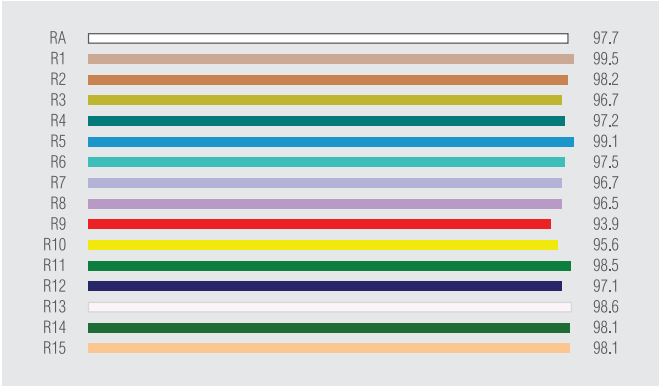
- SolaRay® contains no hazardous material (like Hg, Pb, As, etc.), compliant with RoHS regulations.
- The reduction in lumen over time is very low and the lumen maintenance is significantly longer than that of the conventional lamps.

Lumen Maintenance

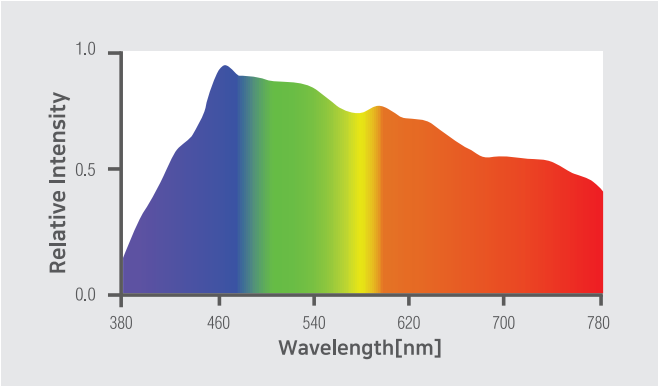


High Color Rendering Index

CRI 98



Spectrum at 6,500K

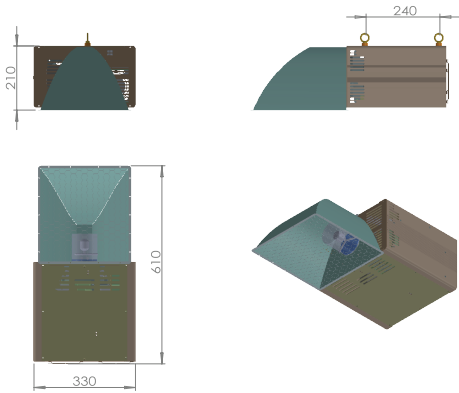


- Plasma Light is near perfect natural light close to the sun light and has a excellent CRI.

Specifications

Input Power (W)	1,100
Total Luminous Flux (lm)	60,000
CCT (K) Depending on Bulb	6,500
CRI (Ra)	98
Lumen maintenance (%) [est. over life]	>95
Startup Time (s)	<60
System Lifetime (h)	>20,000
RoHS [Hg, Pb, etc.]	Free

Product Dimensions



SolaRay® Plasma Grow Light

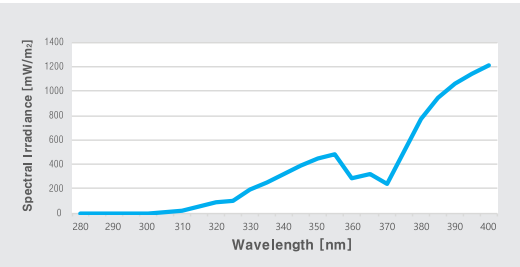
An innovation developed by Maltani Corporation

Introducing SolaRay® Plasma Grow Light

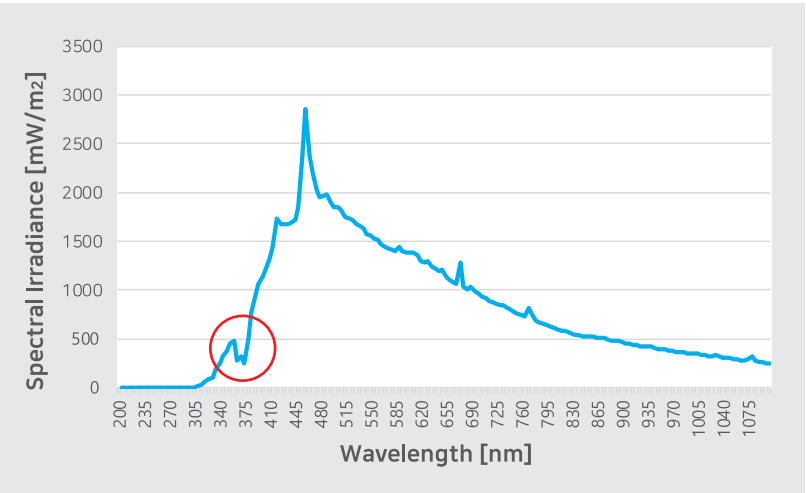
- SolaRay® plasma lights are a class of white light sources developed by Maltani Corporation. It is best suited for many applications that require high color quality, i.e. high color rendering index (CRI), including plant grow lighting, entertainment lighting, sports lighting, among many others.
- Our lamps are plasma-discharged in electrodeless bulbs, and the performance life of the bulbs is extended to over 50,000 hours, significantly reducing the down time for maintenance and service.
- **The plasma grow lights** provide a continuous spectrum covering the whole range of visible light and contain a proper amount of UV-B, UV-A, and blue light that are essential for good photosynthesis and photomorphogenesis in plant growing.
This is achieved using a single bulb.
- Crops grown under our SolaRay® plasma grow lights will increase plant production of different phenolic alkaloids and essential oils in many plants, and terpenoids and cannabinoids in trichomes of cannabis plants that have been known to have excellent medicinal properties.



Spectrum of SolaRay® Plasma Light Emitting Visible, UV-B, UV-A, and IR using a Single Bulb



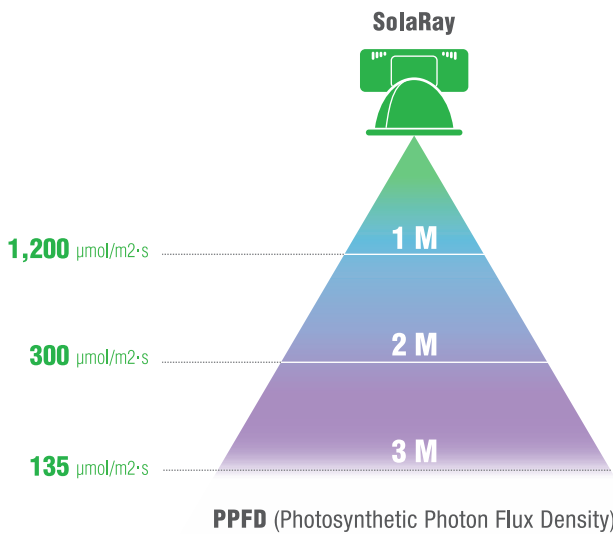
SolaRay®	Wavelength [nm]	Output [mW/m2]
UV-A	315 - 400	40,908.75
UV-B	280 - 315	335.45
Measurement Detector		IDR-300/BENTHAM
Test Method		IEC 62471



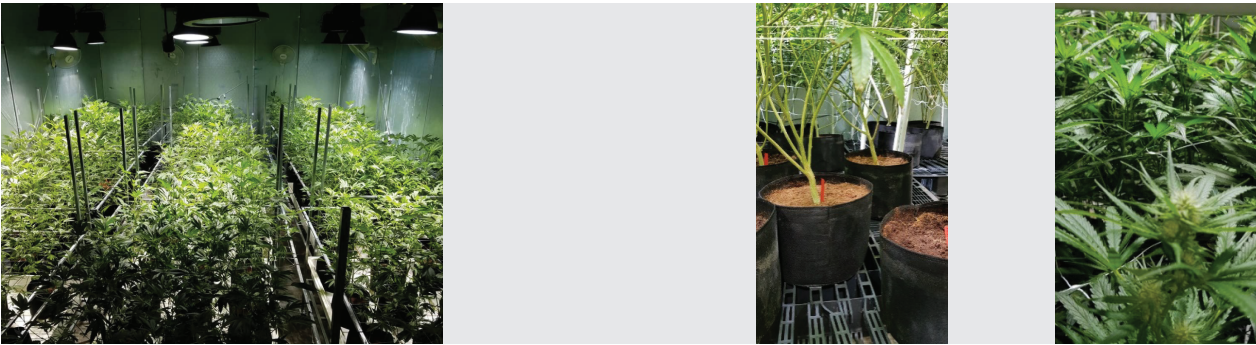
- Our plasma grow lights provide a continuous spectrum covering the whole range of visible light and contain a sufficient amount of UV-A, **UV-B**, and blue light that are essential for good photosynthesis and photomorphogenesis in plant growing.
- Continuous spectrum in the visible range:
 - * In Vegetative region (**Blue**) and in Flowering region (**Red and Far Red**) for chlorophyll;
 - * in Carotenoid region (**Green-Yellow**);
- IR radiation helps evaporate moisture from leaves, efficiently replenishing water with nutrients to the plants, and thus the plants grow with more bushes and branches and produce more biomass.

Advantages of SolaRay® for Plant Growing

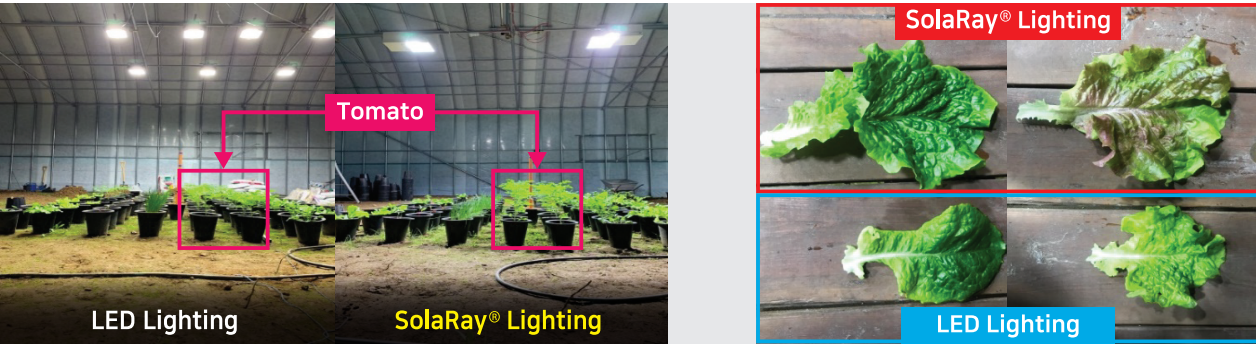
- Spectrum close to the sun light
- Shortening of the total growth cycle
- Increased production of biomass
- Improved plant quality
- Low maintenance of the light sources
- Long life time of the bulb



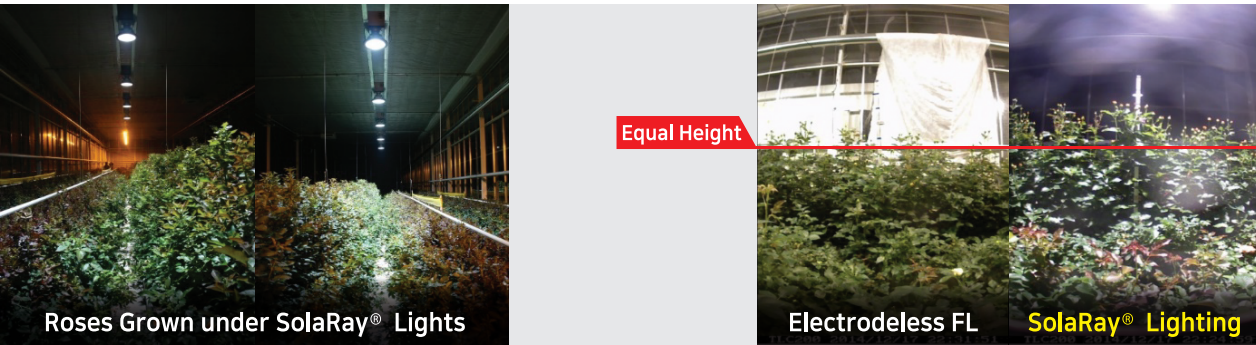
Plants Grown under SolaRay® Plasma Lights



They grow faster with strong stalks and an ample amount of leaves in the vege stage and a boun-
tiful amount of biomass at the flowering stage under plasma lights than under conventional HPS
lights. In particular, the UV-B (and UV-A) contents will **enhance the production of terpinoids and
cannabinoids in trichomes of cannabis plants**. [Courtesy Pure Plasma Lighting.]



Plants grown under SolaRay® plasma lights and under LEDs with equal power are compared.
The tomatoes, for example, are grown twice as fast and with more leaves under plasma lights.
[It is under technical investigations at Korea Technology Research Institute.]



Roses grown under SolaRay® plasma lights and those under electrodeless fluorescent lights (FL) are
compared. Roses are grown almost 20% faster and form more rose buds under plasma lights
than under FL. [Tested at a rose growing farm near Seoul, Korea.]